Abdelmajid Belafhal

List of Publications by Year
in descending order

137 papers	2,060 citations	279487 23 h-index	395343 33 g-index
152 all docs	152 docs citations	152 times ranked	502 citing authors

#	Article	IF	Citations
1	Propagation properties of Hermite-cosh-Gaussian laser beams. Optics Communications, 2000, 186, 269-276.	1.0	83
2	N-body quantum-mechanical Hamiltonians: Extrapotential terms. Journal of Molecular Spectroscopy, 1991, 149, 274-304.	0.4	73
3	Collins formula and propagation of Bessel-modulated Gaussian light beams through an ABCD optical system. Optics Communications, 2000, 177, 181-188.	1.0	66
4	Introduction of generalized Besselâ€"Laguerreâ€"Gaussian beams and its central intensity travelling a turbulent atmosphere. Optical and Quantum Electronics, 2018, 50, 1.	1.5	46
5	Paraxial propagation of Mathieu beams through an apertured ABCD optical system. Optics Communications, 2005, 253, 223-230.	1.0	45
6	Focusing properties and focal shift in hyperbolic-cosine-Gaussian beams. Optics Communications, 2005, 253, 242-249.	1.0	45
7	Fourier Transform Spectroscopy of Carbonyl Sulfide from 1800 to 3120 cmâ^'1: The Normal Species. Journal of Molecular Spectroscopy, 1995, 174, 1-19.	0.4	42
8	On the validity of integral localized approximation for on-axis zeroth-order Mathieu beams. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 204, 27-34.	1.1	42
9	Theoretical Introduction and Generation Method of a Novel Nondiffracting Waves: Olver Beams. Optics and Photonics Journal, 2015, 05, 234-246.	0.3	39
10	Effects of a turbulent atmosphere on an apertured Lommel-Gaussian beam. Optik, 2016, 127, 11534-11543.	1.4	37
11	Fourier Transform Spectroscopy of Carbonyl Sulfide from 4800 to 8000 cmâ^'1and New Global Analysis of16O12C32Sâ˜†. Journal of Molecular Spectroscopy, 1998, 191, 32-44.	0.4	35
12	Parametric characterization of truncated Hermite-cosh-Gaussian beams. Optics Communications, 2001, 190, 29-36.	1.0	35
13	Introduction of a new vortex cosine-hyperbolic-Gaussian beam and the study of its propagation properties in fractional Fourier transform optical system. Optical and Quantum Electronics, 2020, 52, 1.	1.5	35
14	Propagation of vortex cosine-hyperbolic-Gaussian beams in atmospheric turbulence. Optical and Quantum Electronics, 2021, 53, 1.	1.5	34
15	A theoretical study of the on-axis average intensity of generalized spiraling Bessel beams in a turbulent atmosphere. Optical and Quantum Electronics, 2017, 49, 1.	1.5	33
16	A comparative parametric characterization of elegant and standard Hermite-cosh-Gaussian beams. Optics Communications, 2005, 253, 231-241.	1.0	32
17	A detailed study of Mathieuâ€"Gauss beams propagation through an apertured ABCD optical system. Optics Communications, 2006, 265, 594-602.	1.0	30
18	Radiative properties of cadmium telluride thin film as radiative cooling materials. Optics Communications, 2005, 256, 10-15.	1.0	28

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19	Closed-form propagation expressions of flattened Gaussian beams through an apertured ABCD optical system. Optics Communications, 2001, 193, 73-79.	1.0	27
20	Theoretical investigation on the Hollow Gaussian beams propagating in atmospheric turbulent. Chinese Journal of Physics, 2016, 54, 194-204.	2.0	27
21	Transformation of double-half inverse Gaussian hollow beams into superposition of finite Airy beams using an optical Airy transform. Optical and Quantum Electronics, 2019, 51, 1.	1.5	27
22	Focal shift in the axisymmetric Bessel-modulated Gaussian beam. Optics Communications, 2005, 255, 235-240.	1.0	26
23	Evolution of the partially coherent Generalized Flattened Hermite-Cosh-Gaussian beam through a turbulent atmosphere. Optical and Quantum Electronics, 2020, 52, 1.	1.5	26
24	Behavior of the central intensity of generalized humbert-gaussian beams against the atmospheric turbulence. Optical and Quantum Electronics, 2021, 53, 1.	1.5	26
25	Thin cadmium sulphide film for radiative cooling application. Optics Communications, 2006, 267, 65-68.	1.0	25
26	Propagation characteristics of dark and antidark Gaussian beams in turbulent atmosphere. Optical and Quantum Electronics, 2019, 51, 1.	1.5	25
27	Conversion of the hyperbolic-cosine Gaussian beam to a novel Finite Airy-related beam using an optical airy transform system. Optik, 2018, 171, 501-506.	1.4	25
28	Evaluation of integral transforms using special functions with applications to biological tissues. Computational and Applied Mathematics, 2021, 40, 1.	1.0	23
29	Effect of turbulent atmosphere on the on-axis average intensity of Pearceyâ€“Gaussian beam. Chinese Physics B, 2016, 25, 064208.	0.7	22
30	Propagation Characteristics of Airy-Gaussian Beams Passing through a Misaligned Optical System with Finite Aperture. Optics and Photonics Journal, 2014, 04, 325-336.	0.3	21
31	A theoretical investigation on the propagation properties of Hollow Gaussian beams passing through turbulent biological tissues. Optik, 2017, 141, 72-82.	1.4	20
32	Propagation properties of vortex cosine-hyperbolic-Gaussian beams through oceanic turbulence. Optical and Quantum Electronics, 2022, 54, 1.	1.5	20
33	Absolute Intensities in 16O12C32S: The 2500-3100 cmâ ˆ'1. Journal of Molecular Spectroscopy, 1995, 173, 347-369.	0.4	19
34	Theoretical intensity distribution of internal conical refraction. Optics Communications, 2000, 178, 257-265.	1.0	19
35	Title is missing!. Optical and Quantum Electronics, 2003, 35, 101-110.	1.5	19
36	Propagation properties of Hollow higher-order cosh-Gaussian beams in quadratic index medium and Fractional Fourier transform. Optical and Quantum Electronics, 2021, 53, 1.	1.5	19

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37	Propagation Properties of Finite Olver-Gaussian Beams Passing through a Paraxial ABCD Optical System. Optics and Photonics Journal, 2015, 05, 273-294.	0.3	19
38	Comparative analysis of some Schell-model beams propagating through turbulent atmosphere. Optical and Quantum Electronics, 2022, 54, 1.	1.5	18
39	Propagation properties of vector Mathieuâ€“Gauss beams. Optics Communications, 2007, 275, 165-169.	1.0	17
40	Transformation of higher-order cosh-Gaussian beams into an Airy-related beams by an optical airy transform system. Optical and Quantum Electronics, 2020, 52, 1.	1.5	17
41	Intensity characteristics of double-half inverse Gaussian hollow beams through turbulent atmosphere. Optical and Quantum Electronics, 2020, 52, 1.	1.5	17
42	Effect of the turbulent biological tissues on the propagation properties of Coherent Laguerre-Gaussian beams. Optical and Quantum Electronics, 2021, 53, 1.	1.5	17
43	The shape of spectral lines: widths and equivalent widths of the Voigt profile. Optics Communications, 2000, 177, 111-118.	1.0	16
44	Radiation pressure cross section exerted on homogenous dielectric spherical particle by zeroth order Mathieu beams. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 179, 170-176.	1.1	16
45	Generation of generalized spiraling Bessel beams of arbitrary order by curved fork-shaped holograms. Optical and Quantum Electronics, 2016, 48, 1.	1.5	16
46	Generating sub wavelength pure longitudinal magnetization probe and chain using complex phase plate. Optics Communications, 2018, 407, 275-279.	1.0	16
47	Relativistic self-focusing of finite Airy-Gaussian beams in collisionless plasma using the Wentzelâ€Kramersâ€Brillouin approximation. Optik, 2018, 154, 58-66.	1.4	16
48	A new atmospheric spectral model for the marine environment. Optik, 2018, 153, 86-94.	1.4	16
49	Propagation properties of vortex cosine-hyperbolic-Gaussian beams in strongly nonlocal nonlinear media. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 265, 107554.	1.1	16
50	Effects of turbulent atmosphere on the propagation properties of vortex Hermite-cosine-hyperbolic-Gaussian beams. Optical and Quantum Electronics, 2021, 53, 1.	1.5	16
51	NOVEL FINITE AIRY ARRAY BEAMS GENERATED FROM GAUSSIAN ARRAY BEAMS ILLUMINATING AN OPTICAL AIRY TRANSFORM SYSTEM. Progress in Electromagnetics Research M, 2016, 49, 41-50.	0.5	15
52	Generation of ultra-long pure magnetization needle and multiple spots by phase modulated doughnut Gaussian beam. Optics and Laser Technology, 2018, 102, 40-46.	2.2	15
53	Effect of light absorption and temperature on self-focusing of finite Airyâ€“Gaussian beams in a plasma with relativistic and ponderomotive regime. Optical and Quantum Electronics, 2018, 50, 1.	1.5	15
54	Focusing properties and focal shift of a vortex cosine-hyperbolic Gaussian beam. Optical and Quantum Electronics, 2021, 53, 1.	1.5	15

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55	Flat-topped Mathieu-Gauss beam and its transformation by paraxial optical systems. Optics Communications, 2007, 278, 142-146.	1.0	14
56	Conversion of circular beams by a spiral phase plate: Generation of Generalized Humbert beams. Optik, 2017, 138, 516-528.	1.4	14
57	Beam propagation factor of Hollow higher-order Cosh-Gaussian beams. Optical and Quantum Electronics, 2022, 54, 1.	1.5	14
58	Scattering of Mathieu beams by a rigid sphere. Optics Communications, 2011, 284, 3030-3035.	1.0	13
59	A new study of turbulence effects in the marine environment on the intensity distributions of flat-topped Gaussian beams. Optik, 2016, 127, 8194-8202.	1.4	13
60	A theoretical study of the Fresnel diffraction of Laguerre-Bessel-Gaussian beam by a helical axicon. Optik, 2017, 149, 416-422.	1.4	13
61	A study of nondiffracting Lommel beams propagating in a medium containing spherical scatterers. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 184, 1-7.	1.1	12
62	Fractional Fourier transform of double-half inverse Gaussian hollow beams. Optical and Quantum Electronics, 2018, 50, 1.	1.5	12
63	Transformation of a generalized Besselâ€“Laguerreâ€“Gaussian beam by a paraxial ABCD optical system. Optical and Quantum Electronics, 2019, 51, 1.	1.5	12
64	Partially coherent vortex cosh-Gaussian beam and its paraxial propagation. Optical and Quantum Electronics, 2021, 53, 1.	1.5	12
65	Generation and propagation of novel donut beams by a spiral phase plate: Humbert beams. Optical and Quantum Electronics, 2014, 46, 201-208.	1.5	11
66	Propagation properties of finite cosh-Airy beams through an Airy Transform Optical System. Optical and Quantum Electronics, 2019, 51, 1.	1.5	11
67	Introduction of the vortex Hermite-Cosh-Gaussian beam and the analysis of its intensity pattern upon propagation. Optical and Quantum Electronics, 2021, 53, 1.	1.5	11
68	Parametric characterization of vortex cosine-hyperbolic-Gaussian beams. Results in Optics, 2021, 5, 100120.	0.9	11
69	Fractional Fourier transforms of vortex Hermite-cosh-Gaussian beams. Results in Optics, 2021, 5, 100165.	0.9	11
70	Propagation of the kurtosis parameter of Hollow higher-order Cosh Gaussian beams through paraxial optical ABCD system. Optical and Quantum Electronics, 2022, 54, 1.	1.5	11
71	Behavior of the central intensity of a Hollow-Gaussian beam against the turbulence. Optik, 2016, 127, 11522-11528.	1.4	10
72	Theoretical conversion of the hypergeometric-Gaussian beams family into a high-order spiraling Bessel beams by a curved fork-shaped hologram. Optical and Quantum Electronics, 2017, 49, 1.	1.5	10

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73	On the beam shape coefficients of fundamental nondiffracting beams. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 241, 106750.	1.1	10
74	Diffraction characteristics of Hermite-Cosh-Gaussian beams through an Airy Transform Optical System. Journal of Modern Optics, 2020, 67, 771-781.	0.6	10
75	Propagation analysis of some doughnut lasers beams through a paraxial ABCD optical system. Optical and Quantum Electronics, 2020, 52, 1.	1.5	10
76	Investigation on Airy transform of Four-Petal Gaussian beams. Optical and Quantum Electronics, 2020, 52, 1.	1.5	10
77	Conical refraction with Bessel-Gaussian beam modulated by Bessel gratings using biaxial crystals. Optik, 2016, 127, 10868-10874.	1.4	9
78	Propagation of the finite Olver beams through an apertured misaligned ABCD optical system. Optik, 2017, 136, 573-580.	1.4	9
79	Creation of generalized spiraling bessel beams by fresnel diffraction of Besselâ€“Gaussian laser beams. Optical and Quantum Electronics, 2017, 49, 1.	1.5	9
80	Conical diffraction of Dark and Antidark beams modulated by a Gaussian profile in biaxial crystals. Optik, 2018, 154, 344-353.	1.4	9
81	Diffraction by a radial phase modulated spiral zone plate of abruptly autofocusing beams generated with multiple Bessel-like beams. Optics and Laser Technology, 2018, 107, 366-371.	2.2	9
82	Production of Airy-related beams by an Airy transform optical system. Optical and Quantum Electronics, 2019, 51, 1.	1.5	9
83	Propagation of the Laguerre-Gaussian correlated Shell-model beams through a turbulent jet engine exhaust. Optical and Quantum Electronics, 2022, 54, 1.	1.5	9
84	Partially coherent laser beams propagating in jet engine exhaust induced turbulence. Optical and Quantum Electronics, 2022, 54, .	1.5	9
85	Effects of turbulent atmosphere on the spectral density of Bessel-modulated Gaussian Schell-model beams. Optical and Quantum Electronics, 2022, 54, .	1.5	9
86	A comment on recent proposals for the calculation of vibration-rotation energies in more-than-three atom molecules. Molecular Physics, 1992, 77, 947-955.	0.8	8
87	Fraunhofer diffraction by conical tracks. Optics Communications, 2000, 175, 51-55.	1.0	8
88	Propagation of generalized Mathieuâ€“Gauss beams through paraxial misaligned optical systems. Optics Communications, 2009, 282, 3934-3939.	1.0	8
89	Propagation characteristics of Bessel-like beams through ABCD optical system. Optical and Quantum Electronics, 2017, 49, 1.	1.5	8
90	Focusing properties of radially polarized modified Bessel-modulated Gaussian beam by a high numerical aperture objective. Optics and Laser Technology, 2017, 88, 40-53.	2.2	8

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91	Propagation of vortex Hermite-cosh-Gaussian beams in a gradient-index medium. Optical and Quantum Electronics, 2022, 54, 1.	1.5	8
92	Scattering amplitude of absorbing and nonabsorbing spheroidal particles in the WKB approximation. Journal of Quantitative Spectroscopy and Radiative Transfer, 2002, 72, 385-402.	1.1	7
93	An Integral Transform Involving the Product Of Bessel Functions and Whittaker Function and Its Application. International Journal of Applied and Computational Mathematics, 2020, 6, 1.	0.9	7
94	Hermiteâ€"Gaussian beams in the generalized Lorenzâ€"Mie theory through finiteâ€"series Laguerreâ€"Gaussian beam shape coefficients. Journal of the Optical Society of America B: Optical Physics, 2022, 39, 1027.	0.9	7
95	Propagation of Bessel-Gaussian Shell-model beam through a jet engine exhaust turbulence. Optical and Quantum Electronics, 2022, 54, 1.	1.5	7
96	TRANSFORMATION OF FINITE OLVER-GAUSSIAN BEAMS BY AN UNIAXIAL CRYSTAL ORTHOGONAL TO THE OPTICAL AXIS. Progress in Electromagnetics Research M, 2016, 45, 153-161.	0.5	6
97	A closed form of a kurtosis parameter of a hypergeometric-Gaussian type-II beam. Chinese Physics B, 2016, 25, 044206.	0.7	6
98	A detailed study of internal conical refraction phenomenon of Flattened Gaussian beams propagating in a biaxial crystal. Optik, 2017, 138, 145-152.	1.4	6
99	Analytical study of flat-topped beam characterization using the thermal lens method in sample liquids. Optik, 2018, 166, 323-337.	1.4	6
100	Generation of generalized spiraling Bessel beams by a curved fork-shaped hologram with Bessel-Gaussian laser beams modulated by a Bessel grating. Optik, 2018, 154, 331-343.	1.4	6
101	Impact of light absorption and temperature on self-focusing of zeroth-order Besselâ€"Gauss beams in a plasma with relativisticâ€"ponderomotive regime. Optical and Quantum Electronics, 2018, 50, 1.	1.5	6
102	Diffraction of generalized Humbertâ€"Gaussian beams by a helical axicon. Optical and Quantum Electronics, 2021, 53, 1.	1.5	6
103	Circular cosine-hyperbolic-Gaussian beam and its paraxial propagation properties in free space. Optics Communications, 2022, 502, 127400.	1.0	6
104	An integral transform and its application in the propagation of Lorentz-Gaussian beams. Communications in Mathematics, 2021, 29, 483-491.	0.3	6
105	Parametric characterization of Mathieuâ€"Gauss beams. Optics Communications, 2009, 282, 2590-2594.	1.0	5
106	Scattering of Lommel beams by homogenous spherical particle in generalized Lorenzâ€"Mie theory. Optical and Quantum Electronics, 2018, 50, 1.	1.5	5
107	Generation of spiraling Bessel beams from dark/antidark Gaussian beams diffracted by a curved fork-shaped hologram. Optical and Quantum Electronics, 2019, 51, 1.	1.5	5
108	Propagation of hollow sinh-Gaussian beams in strongly nonlocal nonlinear media. Optics Communications, 2021, 478, 126400.	1.0	5

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109	Optical Fourier transform of pseudo-nondiffracting beams. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 258, 107357.	1.1	5
110	Paraxial propagation and focusing of higher-order cosh-Gaussian beams. Journal of Modern Optics, 2021, 68, 742-752.	0.6	5
111	Integral transforms involving the product of Humbert and Bessel functions and its application. AIMS Mathematics, 2020, 5, 1260-1274.	0.7	5
112	Radiation Forces on a Dielectric Sphere Produced by Finite Olver-Gaussian Beams. Optics and Photonics Journal, 2015, 05, 344-353.	0.3	5
113	Focusing properties and focal shift of partially coherent vortex cosine-hyperbolic-Gaussian beams. Journal of Modern Optics, 2022, 69, 779-790.	0.6	5
114	Light scattering by hexagonal ice crystal in the Wentzelâ€“Kramersâ€“Brillouin approximation. Optical and Quantum Electronics, 2016, 48, 1.	1.5	4
115	Focus shaping of cylindrically polarized Besselâ€“Gaussian beam modulated by Bessel gratings by a high numerical aperture objective. Optical and Quantum Electronics, 2017, 49, 1.	1.5	4
116	Focusing properties of radially polarized Bessel-like beam with radial cosine phase wavefront by a high numerical aperture objective. Optical and Quantum Electronics, 2017, 49, 1.	1.5	4
117	Near-field spectral shift of a zero-order Bessel beam scattered from a spherical particle. Laser Physics Letters, 2018, 15, 066002.	0.6	4
118	Propagation propertiesof a novel generalized flattened Hermite-cosh-Gaussian light beam. Optical and Quantum Electronics, 2020, 52, 1.	1.5	4
119	Integral transforms involving orthogonal polynomials and its application in diffraction of cylindrical Waves. Computational and Applied Mathematics, 2022, 41, 1.	1.0	4
120	Propagation of vortex cosine-hyperbolic-Gaussian beams in uniaxial crystals orthogonal to the optical axis. Optical and Quantum Electronics, 2022, 54, .	1.5	4
121	Response on the â€œComment on propagation properties of Hermiteâ€“coshâ€“Gaussian laser beamsâ€• [Opt. Commun. 186 (2000) 269]. Optics Communications, 2002, 203, 17-19.	1.0	3
122	The conversion of a Liâ€™s flat-topped-Gaussian beam to a superposition of Kummer dark hollow beam by the illumination of a fractional radial Hilbert transform system. Optical and Quantum Electronics, 2016, 48, 1.	1.5	3
123	Contribution to the study of lowest order Bessel-Gaussian beams propagating in thermal quantum plasma. Optik, 2018, 174, 106-113.	1.4	3
124	Evolution properties of vortex beams through strongly nonlocal nonlinear media. Chinese Journal of Physics, 2022, 77, 1419-1430.	2.0	3
125	Evolution of the beam-width parameter of zeroth-order Besselâ€“Gaussian beams in collisional plasma with density ripple. Optical and Quantum Electronics, 2019, 51, 1.	1.5	2
126	Optical trapping of particles by radiation forces of doughnut laser beams in the Rayleigh regime. Optical and Quantum Electronics, 2021, 53, 1.	1.5	2

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127	Analysis of the modulation depth of some femtosecond laser pulses in holographic interferometry. Optical and Quantum Electronics, 2021, 53, 1.	1.5	2
128	Production of good quality holograms by the THz pulsed vortex beams. Optical and Quantum Electronics, 2022, 54, 1.	1.5	2
129	Generation and Propagation Analysis of the Superposition of Humbert-Gaussian Beams. Optical and Quantum Electronics, 2022, 54, .	1.5	2
130	Comment on paper: â€œGeneration of dark hollow beams by using a fractional radial Hilbert transform systemâ€. Optics Communications, 2015, 357, 198-199.	1.0	1
131	Van der Waals dispersion energy between atoms and nanoparticles. Journal of Physics: Conference Series, 2017, 869, 012057.	0.3	1
132	On the rotation repetitions of Mathieu beams angular spectrum in frequency space. Optik, 2021, 247, 168040.	1.4	1
133	Introduction and propagation properties of circular lorentz-bessel-gaussian beams. Optical and Quantum Electronics, 2022, 54, .	1.5	1
134	An advanced method for evaluating Lommel integral and its application in marine environment. Journal of Computational and Applied Mathematics, 2022, 416, 114600.	1.1	1
135	Propagation of generalized Mathieu-Gauss beams through paraxial misaligned optical system. , 2008, , .		0
136	Self-focusing of pseudo-nondiffracting laser beams with circular symmetry in collisional plasma under two ramp density profiles. Optical and Quantum Electronics, 2019, 51, 1.	1.5	0
137	Simple Analytical Expression of the Voigt Profile. Quantum Reports, 2022, 4, 36-46.	0.6	0